

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026501**Date Inspected:** 10-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 8E-PP70.5-E5-NE access hole infill plate to top deck plate outside, QA randomly observed ABF/JV qualified welder Salvador Sandoval continuing to perform CJP groove fill pass welding. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 5/32" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1010 Revision 1. The joint being welded has a double V-groove butt joint with open root welded from the bottom. ABF Quality Control (QC) Salvador Merino was noted monitoring the welding parameters of the welder. Measured welding parameter during welding was 190 amperes on a 5/32" diameter E7018H4R electrode. During the shift, QA monitoring of the work was taken over by fellow QA Craig Hager and continued until the end of the shift.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint S-041 location 'S', QA randomly observed ABF welder Fred Kaddu excavate the Ultrasonic Testing (UT) detected defects at ESW welded T-joint #E-045 location 'F' (face A) using carbon air arc gouging. Prior the excavation, the welder has preheated the defect location to more than 250°F using the propylene gas torch. During the excavation, the welder has noted linear indications which indicated a lack of fusion defect. QC has performed the MT as the welder chase the extent of the indications. The repair excavation was located at Y=2480mm and has a boat shape dimensions of 150mm long x 30mm wide x 13mm deep. The other repair excavation was located at Y=3380mm and having a boat shape excavation dimensions of 290mm long x 25mm wide x 17mm deep. Both repair excavations were tested by ABF QC John

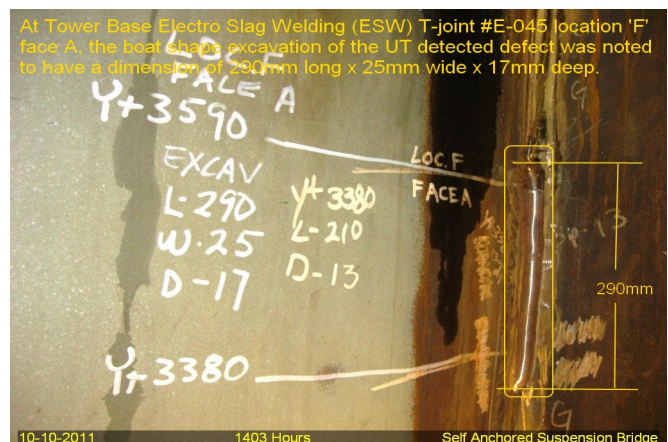
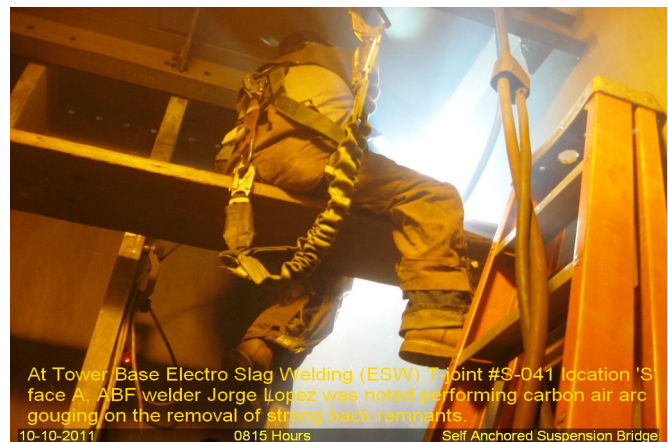
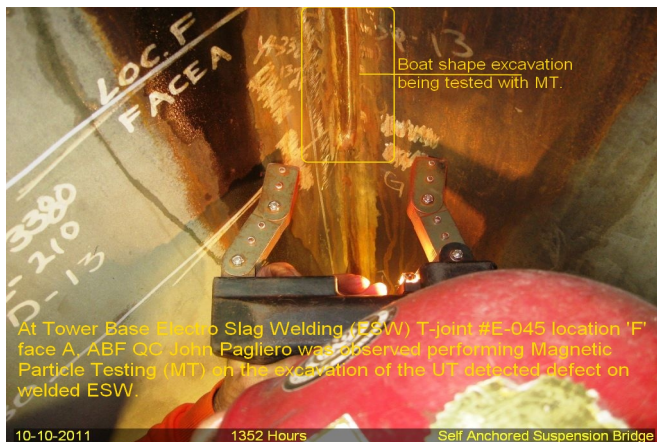
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Pagliero using Magnetic Particle Testing (MT) with positive result. This QA performed VT/MT verification on the defect removal and noted same result. After the excavation and testing on the defect removal of the defects, QC has informed this QA that QC will initiate the Request for Welding Repair (RWR) and forward it to ABF for Caltrans approval.

At Tower Base Electro Slag Welding (ESW) T-joint #S-041 location 'S' (face A), ABF welder Jorge Lopez was noted continuing to remove the remnants of the welded temporary strong back attachments. The welder was using carbon air arc gouging and followed by a disc grinder to completely remove the remnants. The welder was noted working from 9 to 13 meters elevation. At the end of the shift, carbon air arc gouging and grinding were completed on six (6) welded temporary attachments.

The weather was rainy and wet today at the job site. Due to this weather condition, only defect excavation on UT detected defects and removal of strong back remnants were performed. There was no welding work performed by ABF personnel at the tower base.



## Summary of Conversations:

No significant conversation occurred today.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials

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for your project.

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**Inspected By:** Lizardo, Joselito

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer